# NETWORKING APPLICATIONS FOR AUTOMATED DATA COLLECTION

## BACKGROUND OF THE INVENTION

### 1.  Field of the Invention

5        The present invention relates to automated data collection systems that collect information from radio frequency identification (RFID) transponders, and more particularly, to an automated data collection system that uses the information encoded in the RFID transponder to control certain network applications.


### 2.  Description of Related Art

10       In the automatic data identification industry, the use of RFID transponders (also known as RFID tags) has grown in prominence as a way to track data regarding an object to which the RFID transponder is affixed.  An RFID transponder generally includes a semiconductor memory in which digital information may be stored, such as an electrically erasable, programmable read-only memory (EEPROMs) or similar

15  electronic memory device.  Under a technique referred to as "backscatter modulation," the RFID transponders transmit stored data by reflecting varying amounts of an electromagnetic field provided by an RFID interrogator by modulating their antenna matching impedances.  The RFID transponders can therefore operate independently of

20  the frequency of the energizing field, and as a result, the interrogator may operate at multiple frequencies so as to avoid radio frequency (RF) interference, such as utilizing frequency hopping spread spectrum modulation techniques.  The RFID transponders may either extract their power from the electromagnetic field provided by the interrogator, or include their own power source.

25      Since RFID transponders do not include a radio transceiver, they can be manufactured in very small, lightweight and inexpensive units.  RFID transponders that extract their power from the interrogating field are particularly cost effective since they lack a power source.  In view of these advantages, RFID transponders can be used in